

In The Specification:

Please replace the paragraph beginning on page 11, line 13, and ending on page 12, line 8, with the following:

FIG. 6 shows an embodiment of the present invention where an enhanced debug circuit 60 is provided for LBIST testing. FIG. 6 represents an enhanced debug circuit. In the debug circuit 60, a masking register file 52, which can be a scan-only register file, is provided for masking operation. A control unit 54, which can be an OR gate, is further provided to allow overriding or disabling the action of the masking register file 52 by setting forth an "over ride" signal 70. A masking unit 56, which can be an AND gate, is yet further provided to combine the scanning data 72 with the output from the masking register file 52. A loading unit 62, which can be a 2:1 multiplexor (mux), is further provided to allow either recycling the data from the register file 52 back to the loading unit 62 via a feedback loop 68 during test, or loading new register file data 66 prior to testing. A load select ~~54~~64 is provided to determine the selection between the recycling data from feedback loop 68 and new register file data 66. A signature compression register 3 is yet further provided to compress the output from the masking unit 56 to generate new signature data and further send the signature data to a LBIST unit 80.

Please replace the paragraph beginning on page 14, line 7, and ending on page 15, line 2, with the following:

Q2 Finally, the over ride signal 70 in the control unit 54 can be used for testing in situations where the masking register file 52 is not needed, or to provide additional flexibility during test sequences. For example, with the over ride signal 70 ON (masking register file 52 disabled), initial testing can be done without having to first load the masking register file 52 with all "1s". Further, the over ride signal 70 is also useful in situations where a latch, or group of latches is known to fail on all chips at a reduced frequency. Furthermore, the masking register file 52 can be loaded appropriately at the beginning of the testing. A test is first carried out with the over ride signal 70 ON (masking register file 52 disabled), to find the failing frequency of the "problem" latches. Then, the control unit 54 is turned OFF (masking register file 52 enabled) to find the worst failing frequency of the rest of the scan string. Thus, the whole test sequence can be easily set up from the beginning without having to stop and load the masking register file 52 half way through the process.